

ABSTRACT

This invention relates to methods for detecting the deficiency of magnesium tightly bound to plasma membranes of somatic cells, referred to as the magnesium binding defect. The invention also relates to methods for assessing certain abnormal physiological states, such as, salt-sensitive essential hypertension, type 2 overt or prediabetes mellitus, and preeclampsia/eclampsia syndrome that are associated with the magnesium binding defect. The invention further relates to methods for generating magnesium deficient cell membranes and for identifying substances which promote binding of magnesium ions to the plasma membranes of somatic cells. Additionally, the invention relates to a binding pair members having affinity for the peptides and promoters of the invention.